

Historic, archived document

Do not assume content reflects current scientific knowledge, policies, or practices.





United States
Department of
Agriculture

Forest Service

Northeastern
Research Station

Research Note NE-385



Bulletin of Hardwood Market Statistics: 2004

David Emanuel
Carol Rhodes

Abstract

Provides current and historical information on primary and secondary hardwood products, production, prices, international trade, and employment.

Introduction

Data contained in this bulletin provide a general overview of recent trends in the hardwood market for use by hardwood-related industries, forest managers, the academic community, and the public. The statistics presented in this bulletin are not inclusive. Specific series were selected on the basis of their availability and completeness, and were derived from a variety of sources. Questions about data collection procedures should be directed to the issuing agency or organization.

The reported import and export data for hardwood logs, lumber, veneer, and plywood are reproduced in their entirety as received from the U.S. Department of Commerce, Bureau of the Census. Reporting errors have occurred in the past due to coding and computing program errors and

changes in tariff systems. For information on these errors, see Luppold (1995). Readers interested in export and import data are encouraged to reference additional sources when evaluating international trade statistics. For additional information on the international trade series presented here, please contact Bruce Hansen at 304-431-2739.

Readers interested in price data for specific subregions of the domestic hardwood market are encouraged to contact state forestry officials for information on local market conditions.

Your input is critical in helping us make this bulletin more useful. We welcome comments or suggestions on additional data series to include or different breakdowns of the data currently reported. Copies of this bulletin are free on request. Send your comments and requests to David M. Emanuel at the address below.

DAVID EMANUEL AND CAROL RHODES are members of the eastern forest use in a global economy unit at the Northeastern Research Station, Forestry Sciences Laboratory, 241 Mercer Springs Road, Princeton, WV 24740.

Tables in This Report and Frequency of Update

Number	Title	Frequency of update
Hardwood Stumpage, Log, and Lumber Prices		
1	Average hardwood stumpage prices in northwestern Pennsylvania, 1999-2004	Quarterly
2	Average hardwood stumpage prices in Missouri, statewide, 1999-2004	Quarterly
3	Average hardwood stumpage prices in Maine, statewide, 1998-2003	Yearly
4	Average hardwood stumpage prices in the northern and delta and river regions of Mississippi, 1999-2004	Bimonthly
5	Average hardwood stumpage prices in Ohio, statewide, 1999-2004	Biannual
6	Average hardwood mill prices of grade 1 logs in northwestern Pennsylvania, 1999-2004	Quarterly
7	Average hardwood mill prices of grade 1 logs in Missouri, statewide, 1998-2003	Quarterly
8	Average hardwood mill prices of grade 1 logs in eastern Tennessee, 1999-2004	Quarterly
9	Average hardwood mill prices in the northern and delta and river regions of Mississippi, 1999-2004	Bimonthly
10	Average hardwood mill prices of red oak logs in Ohio, statewide, 1999-2004	Biannual
11	Green hardwood lumber prices, 1999-2004	Quarterly
12	Kiln-dried hardwood lumber prices, 1999-2004	Quarterly
Hardwood Product Prices, Production, and Employment		
13	Producer price indexes for selected wood industries, 1999-2004	Quarterly
14	Value of nonupholstered wood household furniture shipments and nonupholstered wood household furniture imports, 1999-2004	Yearly
15	Shipments of oak strip flooring, 1999-2004	Yearly
16	Employment in selected wood-using industries, 1999-2004	Quarterly
International Hardwood Product Trade		
17	International exchange rate, foreign currency per U.S. dollar, 1999-2004	Quarterly
18	Volume and value of U.S. hardwood log exports, by region, 1999-2004	Quarterly
19	Volume and value of U.S. hardwood lumber exports, by region, 1999-2004	Quarterly
20	Volume and value of U.S. hardwood veneer exports, by region, 1999-2004	Quarterly
21	Volume and value of U.S. hardwood plywood exports, by region, 1999-2004	Quarterly
22	Volume and value of U.S. hardwood log imports, by region, 1999-2004	Quarterly
23	Volume and value of U.S. hardwood lumber imports, by region, 1999-2004	Quarterly
24	Volume and value of U.S. hardwood veneer imports, by region, 1999-2004	Quarterly
25	Volume and value of U.S. hardwood plywood imports, by region, 1999-2004	Quarterly
26	Value of U.S. wood furniture imports, by region, 1999-2004	Quarterly
27	Volume and value of U.S. exports of nonconiferous chips, by region, 1999-2004	Quarterly

HARDWOOD STUMPAGE, LOG, AND LUMBER PRICES

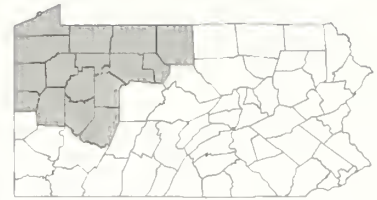


Table 1.--Average hardwood stumpage prices in northwestern Pennsylvania, 1999-2004

(Dollars/Mbf, International 1/4" scale)

Year/quarter	Red Oak	White oak	Black cherry	Hard maple	Soft maple	Yellow-poplar
1999	504	217	1,347	313	182	133
2000	578	248	1,583	393	206	157
2001	475	182	1,393	367	183	128
2002	490	157	1,374	376	177	119
2003/1	492	178	1,416	369	177	110
2003/2	555	185	1,639	402	195	111
2003/3	546	187	1,768	406	192	117
2003/4	437	176	1,615	358	170	144
2003 avg.	508	182	1,610	384	184	121
2004/1	520	237	1,295	340	188	124
2004/2	524	206	1,834	389	189	124
2004/3	517	193	1,640	328	167	97
2004/4	526	217	1,429	367	175	103
2004 avg.	522	213	1,549	356	180	112

Source: The Pennsylvania State University, School of Forest Resources, Cooperative Extension.



Table 2.--Average hardwood stumpage prices in Missouri, statewide, 1999-2004

(Dollars/Mbf, International 1/4" scale)

Year/quarter	Red oak	White oak	Ash	Hard maple	Soft maple	Mixed hardwoods
1999	171	220	130	170	201	147
2000	194	185	160	85	255	130
2001	174	176	94	137	207	136
2002	185	159	90	150	180	115
2003/1	180	145	65	NA	150	115
2003/2	175	155	NA	NA	125	115
2003/3	205	145	100	140	200	155
2003/4	165	145	90	NA	165	160
2003 avg.	181	147	85	140	160	136
2004/1	195	215	210	135	190	160
2004/2	185	195	110	140	150	120
2004/3	225	180	165	45	210	75
2004/4	220	175	70	NA	155	115
2004 avg.	206	191	139	107	176	118

NA = Not available.

Source: Missouri Department of Conservation, Forestry Division.

Table 3.--Average hardwood stumpage prices in Maine, statewide, 1998-2003

(Dollars/Mbf, International 1/4" scale)



Year	Red Oak	Yellow birch	White ash	Hard maple	Soft Maple
1998	246	120	123	157	83
1999	224	119	129	157	85
2000	245	122	127	187	80
2001	218	129	118	198	77
2002	230	125	111	168	78
2003	265	153	123	232	103

Source: Maine Forest Service, Management and Utilization Division.

Table 4.--Average hardwood stumpage prices in the northern and delta and river regions of Mississippi, 1999-2004

(Dollars/Mbf, Doyle scale)



Year	North		Delta and River	
	Oak	Mixed hardwoods	Oak	Mixed hardwoods
1999	296	183	369	159
2000	285	169	348	168
2001	306	164	347	134
2002	305	160	362	141
2003				
Jan-Feb	321	172	335	144
Mar-Apr	301	174	371	161
May-Jun	348	170	396	156
Jul-Aug	NA	NA	NA	NA
Sep-Oct	342	172	370	170
Nov-Dec	321	175	366	152
2003 avg.	327	173	368	157
2004				
Jan-Feb	305	170	347	162
Mar-Apr	307	183	355	159
May-Jun	NA	NA	NA	NA
Jul-Aug	NA	NA	NA	NA
Sep-Oct	NA	NA	NA	NA
Nov-Dec	NA	NA	NA	NA
2004 avg.	NA	NA	NA	NA

NA = Not available.

Source: Mississippi State University, Extension Service.

Table 5.--Average hardwood stumpage prices in Ohio, statewide, 1999-2004

(Dollars/Mbf, Doyle scale)



Year/season	White oak	Red oak	Cherry	Yellow-poplar
1999/spring	340	435	665	205
1999/fall	330	440	640	225
2000/spring	370	430	690	235
2000/fall	345	445	815	225
2001/spring	325	445	690	170
2001/fall	NA	NA	NA	NA
2002/spring	NA	NA	NA	NA
2002/fall	NA	NA	NA	NA
2003/spring	359	454	704	226
2003/fall	304	410	812	200
2004/spring	371	481	900	172
2004/fall	443	570	930	215

NA = Not available.

Source: Ohio Department of Natural Resources, Division of Forestry, Columbus.

Table 6.--Average hardwood mill prices of grade 1 logs in northwestern Pennsylvania, 1999-2004

(Dollars/Mbf, International 1/4" scale)



Year/quarter	Red oak	White Oak	Black Cherry	Hard maple	Soft maple	Yellow-poplar
1999	509	289	923	422	256	162
2000	560	318	1,152	543	286	207
2001	487	259	1,035	523	264	172
2002	489	273	1,024	490	270	163
2003/1	592	317	1,107	432	271	164
2003/2	487	288	1,018	457	280	162
2003/3	520	273	1,180	509	295	166
2003/4	560	315	1,146	508	298	198
2003 avg.	540	298	1,113	476	286	173
2004/1	575	266	1,298	570	334	192
2004/2	590	374	NA	678	374	241
2004/3	559	304	NA	578	378	206
2004/4	410	266	NA	570	331	152
2004 avg.	533	302	1,298	599	354	198

NA – not available

Source: The Pennsylvania State University, School of Forest Resources, Cooperative Extension.

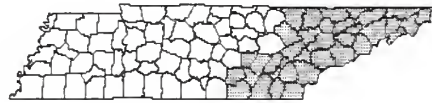


**Table 7.--Average hardwood mill prices of grade 1 logs
in Missouri, statewide, 1998-2003**
(Dollars/Mbf, International 1/4" scale)

Year/quarter	Red oak	White oak	Cherry	Ash	Soft maple	Black walnut
1998	401	350	419	316	340	440
1999	422	394	634	366	435	471
2000	409	316	501	283	360	415
2001	457	365	744	302	379	516
2002/1	485	375	710	325	355	695
2002/2	405	390	1,105	340	470	865
2002/3	425	325	435	290	360	555
2002/4	370	625	415	415	280	1,245
2002 avg.	421	429	666	342	366	840
2003/1	435	425	500	265	500	1,200
2003/2	NA	NA	NA	NA	NA	NA
2003/3	NA	NA	NA	NA	NA	NA
2003/4	NA	NA	NA	NA	NA	NA
2003 avg.	NA	NA	NA	NA	NA	NA

NA = Not available

Source: Missouri Department of Conservation, Forestry Division.



**Table 8.--Average hardwood mill prices of grade 1 logs
in eastern Tennessee, 1999-2004**
(Dollars/Mbf, Doyle scale)

Year/quarter	Red Oak	White oak	Walnut	Ash	Hard maple	Yellow- poplar
1999	725	619	500	487	437	356
2000	875	675	500	550	550	447
2001	847	614	587	490	506	389
2002	809	554	669	408	434	331
2003/1	800	548	650	400	425	341
2003/2	888	650	675	538	663	410
2003/3	888	650	675	450	637	372
2003/4	900	663	675	450	638	385
2003 avg.	869	628	669	460	591	377
2004/1	NA	NA	NA	NA	NA	NA
2004/2	NA	NA	NA	NA	NA	NA
2004/3	NA	NA	NA	NA	NA	NA
2004/4	NA	NA	NA	NA	NA	NA
2004 avg.	NA	NA	NA	NA	NA	NA

NA = Not available

Source: Tennessee Division of Forestry, Utilization Section.

Table 9.--Average hardwood mill prices in the northern and delta and river regions of Mississippi, 1999-2004
(Dollars/Mbf, Doyle scale)



Year	North		Delta and River	
	Oak	Mixed hardwoods	Oak	Mixed hardwoods
1999	374	249	434	241
2000	364	259	429	255
2001	373	256	429	233
2002 avg.	371	259	435	247
2003				
Jan-Feb	385	262	435	249
Mar-Apr	380	268	435	250
May-Jun	388	271	446	270
Jul-Aug	NA	NA	NA	NA
Sep-Oct	392	284	430	265
Nov-Dec	390	257	454	261
2003 avg.	387	268	440	259
2004				
Jan-Feb	385	262	440	250
Mar-Apr	392	265	436	251
May-Jun	NA	NA	NA	NA
Jul-Aug	NA	NA	NA	NA
Sep-Oct	NA	NA	NA	NA
Nov-Dec	NA	NA	NA	NA
2004 avg.	NA	NA	NA	NA

NA = Not available.

Source: Mississippi State University, Extension Service.

Table 10.--Average hardwood mill prices of red oak logs in Ohio, statewide, 1999-2004
(Dollars/Mbf, Doyle scale)



Year/season	Average all grades	Grade 1 16 inches	Grade 1	Grade 2	Grade 3
1999/spring	460	805	540	275	145
1999/fall	510	855	615	305	155
2000/spring	465	860	455	285	130
2000/fall	540	960	580	335	160
2001/spring	560	825	595	385	165
2001/fall	NA	NA	NA	NA	NA
2002/spring	NA	NA	NA	NA	NA
2002/fall	NA	NA	NA	NA	NA
2003/spring	497	847	538	318	167
2003/fall	583	839	527	321	172
2004/spring	559	895	567	317	181
2004/fall	590	863	611	356	166

NA = Not available.

Source: Ohio Department of Natural Resources, Division of Forestry, Columbus.

Table 11.--Green hardwood lumber prices, 1999-2004
(Dollars/Mbf)

Year/quarter	4/4 Appalachian red oak 1C	4/4 Poplar 1C	4/4 Cherry 1C	4/4 Northern hard maple 1C	4/4 Northern soft maple 1C
1999	776	387	1,135	872	569
2000	780	458	1,125	983	633
2001	735	395	1,074	994	618
2002	717	396	1,132	1,005	582
2003/1	790	410	1,345	1,005	605
2003/2	800	415	1,400	1,005	615
2003/3	835	405	1,445	1,005	615
2003/4	835	395	1,515	1,015	615
2003 avg.	815	406	1,426	1,008	613
2004/1	865	395	1,530	1,085	615
2004/2	865	395	1,560	1,100	665
2004/3	855	395	1,575	1,140	685
2004/4	835	395	1,575	1,140	700
2004 avg.	855	395	1,560	1,116	666

Source: Hardwood Market Report, Memphis, TN.

Table 12.--Kiln-dried hardwood lumber prices, 1999-2004
(Dollars/Mbf)

Year/quarter	4/4 Appalachian red oak 1C	4/4 Poplar 1C	4/4 Cherry 1C	4/4 Northern hard maple 1C	4/4 Northern soft maple 1C
1999	1,066	514	1,610	1,199	762
2000	1,064	600	1,637	1,435	851
2001	999	535	1,432	1,324	816
2002	979	539	1,429	1,225	807
2003/1	985-1,155	545-615	1,590-1,750	1,215-1,335	810-890
2003/2	1,000-1,155	510-580	1,670-1,830	1,215-1,335	835-915
2003/3	1,005-1,165	495-565	1,705-1,865	1,205-1,325	810-890
2003/4	1,035-1,210	500-570	1,765-1,945	1,185-1,305	865-945
2003 avg.	1,076	553	1,723	1,263	860
2004/1	1,168	540	1,920	1,190	895
2004/2	1,183	540	1,960	NA	915
2004/3	1,183	530	2,015	NA	935
2004/4	1,118	535	1,965	NA	945
2004 avg.	1,163	536	1,965	1,190	923

NA – Not available

Source: Weekly Hardwood Review, Charlotte, NC.

HARDWOOD PRODUCT PRICES, PRODUCTION, AND EMPLOYMENT

Table 13.--Producer Price Indexes for selected wood industries, 1999-2004
(1982=100)

Year/ Quarter	Hardwood Lumber	Hardwood dimension	Wood kitchen cabinets	Wood household furniture	Upholstered wood household furniture	Wood office furniture	All commodities
1999	177.3	183.0	159.7	167.5	145.2	167.3	125.5
2000	185.9	188.8	164.2	170.4	147.6	171.1	132.7
2001	181.3	190.0	167.2	173.5	149.4	174.1	134.2
2002	178.3	188.5	169.7	177.2	151.1	175.1	131.1
2003/1	183.2	190.2	172.1	178.7	152.0	177.3	138.0
2003/2	188.6	189.6	175.0	179.3	152.3	177.8	137.2
2003/3	191.3	189.9	175.1	178.9	152.7	178.0	138.1
2003/4	192.3	190.6	175.6	179.3	152.7	178.3	139.2
2003 avg.	188.8	190.1	174.4	179.0	152.4	177.8	138.1
2004/1	196.9	194.1	177.5	178.7	152.6	178.3	142.2
2004/2	199.0	195.0	178.5	180.1	153.5	178.2	146.3
2004/3	201.0	195.9	179.1	180.9	154.1	179.8	147.7
2004/4	200.3	197.4	180.6	182.6	153.4	180.3	150.5
2004 avg.	199.3	195.6	178.9	180.6	153.4	179.1	146.7

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Table 14.--Value of nonupholstered wood household furniture shipments and nonupholstered wood household furniture imports¹

(Millions of dollars)

Year	Value of Nonupholstered wood household furniture shipments (actual \$) ²	Value of Nonupholstered wood household furniture shipments (1982 \$) ³	Value of nonupholstered wood household furniture imports (actual \$, c.i.f.) ⁴	Value of nonupholstered wood household furniture imports (1982 \$, c.i.f.) ³	Ratio of imports to shipments ⁵
1999	11,942.3	7,130	6,525.8	3,896	.55
2000	11,397.9	6,689	7,822.1	4,590	.69
2001	10,184.2	5,870	7,818.2	4,506	.77
2002	11,456.9	6,466	9,289.7	5,242	.81
2003	NA	NA	10,380.8	5,799	NA
2004	NA	NA	11,874.3	6,575	NA

¹ Table revised to conform with North American Industry Classification System (NAICS).

² Source: U.S. Department of Commerce.

³ Deflated by wood household furniture price index listed in Table 13.

⁴ Source: U.S. Department of Commerce, Bureau of the Census.

⁵ Developed from columns 1 and 3.

NA = Not available.

Table 15.--Shipments of oak strip flooring, 1999- 2004
(Thousands of feet)

Year	Oak strip flooring
1999	536,073
2000	562,885
2001	579,557
2002	627,503
2003	633,114
2004	672,805

Source: National Oak Flooring Manufacturers Association.

Table 16.--Employment in selected industries, 1999-2004
(Thousands of employees)

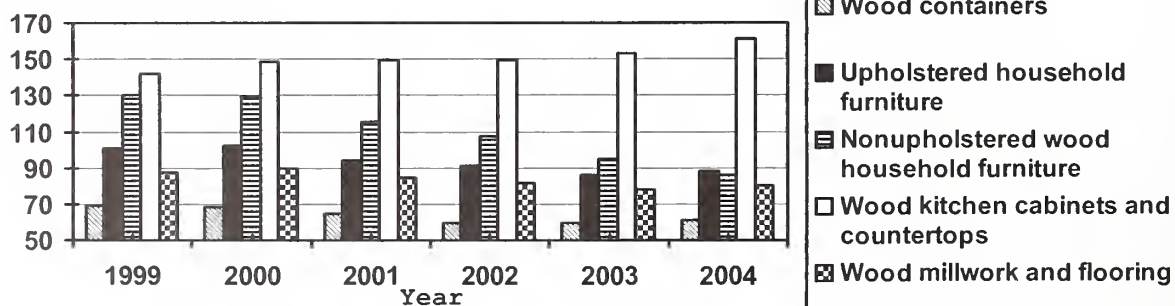
Year/quarter	Wood containers	Upholstered household furniture	Nonupholstered wood household furniture	Wood kitchen cabinets and countertops	Wood millwork and flooring
1999	69.0	101.0	130.4	141.7	87.6
2000	68.4	102.0	129.7	149.0	89.4
2001	64.6	94.0	115.7	149.3	84.6
2002	59.7	91.2	107.1	149.2	81.7
2003/1	57.9	88.6	99.1	149.9	78.7
2003/2	58.8	86.3	95.7	151.9	78.5
2003/3	61.2	84.1	92.6	154.9	78.8
2003/4	61.2	85.3	93.5	155.8	77.0
2003 avg.	59.8	86.1	95.2	153.1	78.3
2004/1	57.6r	88.2r	89.7r	156.1r	78.2r
2004/2	58.4r	88.9r	89.2r	160.2r	80.5r
2004/3	62.6	88.3	83.8	164.1	81.9
2004/4	64.6	87.8	82.4	164.3	80.8
2004 avg.	60.8	88.3	86.3	161.2	80.4

r - revised

North American Industrial Classification System.

Source: U.S. Department of Labor.

Thousands of Employees



Employment in selected industries, 1999-2004.

INTERNATIONAL HARDWOOD PRODUCT TRADE

Table 17.--International exchange rate, foreign currency per U.S. dollar, 1999-2004

Year/ quarter	Belgium [†] (franc)	Brazil (real)	Canada (dollar)	China (yuan)	France [†] (franc)	Germany [†] (mark)	Hong Kong (H.K. \$)	Italy [†] (lira)
1999	37.867	1.8192	1.4858	8.2781	6.1574	1.8359	7.7593	1,817.6
2000	43.808	1.8310	1.4855	8.2784	7.1236	2.1240	7.7924	2,102.8
2001	45.076	2.3531	1.5490	8.2770	7.3299	2.1855	7.7997	2,163.7
2002	1.0612	2.9235	1.5706	8.2770	1.0612	1.0612	7.7997	1.0612
2003/1	0.9316	3.4966	1.5099	8.2776	0.9316	0.9316	7.7993	0.9316
2003/2	0.8809	2.9831	1.3982	8.2771	0.8809	0.8809	7.7992	0.8809
2003/3	0.8880	2.9363	1.3806	8.2772	0.8880	0.8880	7.7943	0.8880
2003/4	0.8406	2.9016	1.3163	8.2769	0.8406	0.8406	7.7570	0.8406
2003 avg.	0.8853	3.0794	1.4012	8.2772	0.8853	0.8853	7.7875	0.8853
2004/1	0.7993	2.8981	1.3181	8.2771	0.7993	0.7993	7.7780	0.7993
2004/2	0.8302	3.0465	1.3596	8.2769	0.8302	0.8302	7.7974	0.8302
2004/3	0.8179	2.9772	1.3078	8.2767	0.8179	0.8179	7.7997	0.8179
2004/4	0.7716	2.7849	1.2209	8.2765	0.7716	0.7716	7.7801	0.7716
2004 avg.	0.8048	2.9267	1.3016	8.2768	0.8048	0.8048	7.7888	0.8048

Year/ quarter	Japan (yen)	Malaysia (ringgit)	Mexico (peso)	Singapore (S. dollar)	South Africa (rand)	South Korea (won)	Spain [†] (peseta)	U.K. (pound)
1999	113.72	3.8000	9.56	1.6947	6.1175	1,189.83	156.18	0.618
2000	107.82	3.8000	9.46	1.7249	6.9470	1,131.38	180.69	0.661
2001	121.52	3.8000	9.34	1.7926	8.6255	1,291.67	185.93	0.695
2002	125.27	3.8000	9.66	1.7909	10.5188	1,250.49	1.0612	0.667
2003/1	118.95	3.8000	10.82	1.7455	8.3438	1,201.34	0.9316	0.624
2003/2	118.53	3.8000	10.45	1.7493	7.7275	1,208.82	0.8809	0.618
2003/3	117.39	3.8000	10.72	1.7517	7.4154	1,175.05	0.8880	0.621
2003/4	108.82	3.8000	11.19	1.7167	6.7382	1,182.69	0.8406	0.586
2003 avg.	115.92	3.8000	10.80	1.7408	7.5562	1,191.98	0.8853	0.612
2004/1	107.17	3.8000	10.99	1.6943	6.7693	1,172.39	0.7993	0.544
2004/2	109.76	3.8000	11.39	1.7036	6.5986	1,163.25	0.8302	0.554
2004/3	109.94	3.8000	11.45	1.7071	6.3789	1,155.15	0.8179	0.550
2004/4	105.76	3.8000	11.33	1.6558	6.0452	1,092.79	0.7716	0.536
2004 avg.	108.16	3.8000	11.29	1.6902	6.4480	1,145.90	0.8048	0.546

[†] Converted to Euro in 2002.

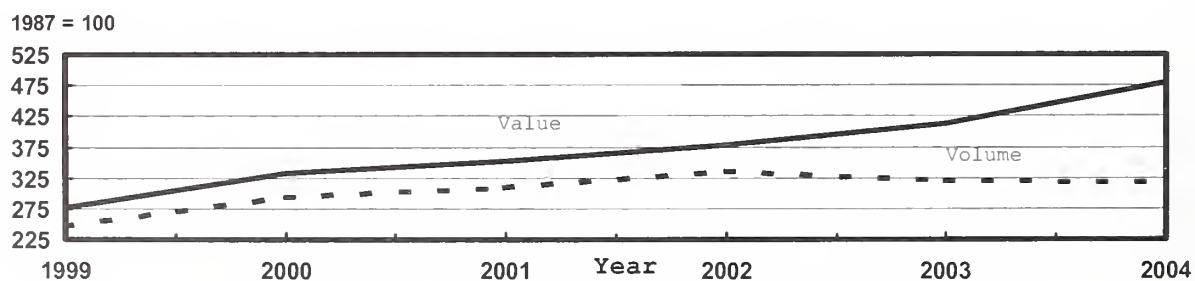
Source: Federal Reserve Bank of St. Louis and Federal Reserve Board of Governors.

Table 18.--Volume and value of U.S. hardwood log exports, by region, 1999-2004
(Cubic meters and thousands of dollars, f.a.s.)

Year/quarter	Canada		Central and South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1999	1,236,647	146,884	21,907	8,027	190,690	86,617
2000	1,414,829	173,648	11,922	4,385	272,605	109,201
2001	1,499,979	168,641	10,389	4,275	266,798	107,671
2002	1,609,415	173,877	13,784	6,558	225,012	97,499
2003/1	419,209	50,562	4,061	1,793	69,556	34,409
2003/2	345,181	46,112	4,661	2,164	68,420	29,659
2003/3	416,046	53,116	6,722	2,456	38,213	19,632
2003/4	331,744	42,549	11,605	3,980	64,753	31,482
Total 2003	1,512,180	192,339	27,049	10,393	240,942	115,181
2004/1	366,190	52,811	9,745	3,676	86,608	42,079
2004/2	277,702	48,414	9,763	3,183	79,457	37,842
2004/3	340,510	54,344	6,743	2,196	40,524	21,496
2004/4	385,618	52,467	10,003	3,124	65,513	35,026
Total 2004	1,370,020	208,037	36,254	12,179	272,102	136,443

Year/quarter	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1999	221,235	83,264	2,788	1,545	1,673,267	326,338
2000	274,770	103,210	4,338	2,482	1,978,464	392,927
2001	307,510	134,803	5,977	2,602	2,090,653	417,992
2002	411,154	167,037	10,803	3,813	2,270,168	448,785
2003/1	107,141	44,639	3,098	2,210	603,065	133,612
2003/2	105,841	44,071	4,304	2,946	528,407	124,952
2003/3	61,061	28,865	1,796	831	523,838	104,899
2003/4	100,629	45,926	2,645	978	511,376	124,916
Total 2003	374,672	163,500	11,843	6,965	2,166,686	488,379
2004/1	124,983	61,021	1,932	922	589,458	160,510
2004/2	168,094	63,148	1,520	607	536,536	153,195
2004/3	69,171	32,679	2,965	1,662	459,913	112,377
2004/4	103,511	49,722	2,529	1,534	567,174	141,874
Total 2004	465,759	206,571	8,946	4,725	2,153,081	567,955

Source: U.S. Department of Commerce, Bureau of the Census.



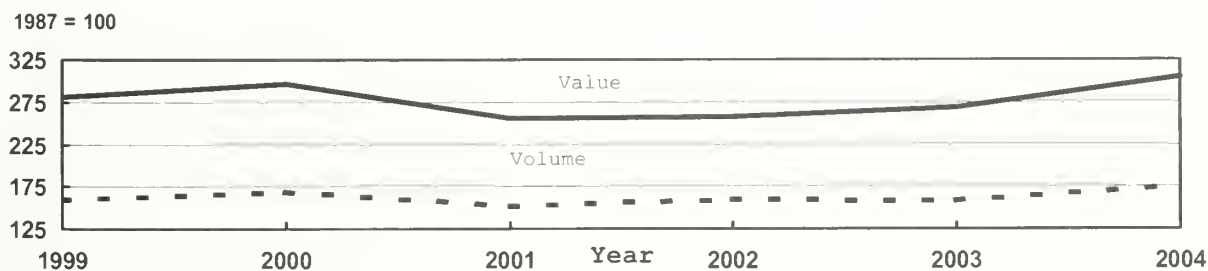
Volume and value index of all U.S. hardwood log exports, 1999 - 2004.

Table 19.--Volume and value of U.S. hardwood lumber exports, by region, 1999-2004
(Cubic meters and thousands of dollars, f.a.s.)

Year/quarter	Canada		Central and South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1999	950,589	347,841	237,028	100,651	801,002	507,768
2000	1,025,912	396,920	252,449	95,557	837,548	528,130
2001	906,295	338,360	194,029	74,051	734,458	446,828
2002	966,314	358,881	175,898	65,455	671,055	401,775
2003/1	267,234	105,705	42,115	15,878	170,456	104,344
2003/2	265,795	106,555	51,763	22,278	159,723	99,086
2003/3	248,091	100,815	45,067	18,079	155,755	99,332
2003/4	235,002	99,137	40,162	16,222	158,202	100,393
Total 2003	1,016,122	412,212	179,107	72,458	644,136	403,155
2004/1	245,335	108,039	55,144	20,736	171,845	112,912
2004/2	266,788	110,591	54,466	21,785	188,185	118,777
2004/3	267,130	107,467	80,733	33,846	143,688	101,494
2004/4	265,518	105,566	63,367	25,883	174,416	118,853
Total 2004	1,044,771	431,663	253,710	102,250	678,134	452,036

Year/quarter	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1999	703,086	347,333	50,855	30,837	2,742,560	1,334,432
2000	725,765	356,099	57,109	31,829	2,898,783	1,408,535
2001	743,233	334,082	32,625	20,592	2,610,640	1,213,913
2002	877,194	376,340	33,759	21,741	2,724,220	1,224,192
2003/1	215,498	91,445	9,171	6,411	704,474	323,784
2003/2	196,470	82,332	6,595	4,189	680,346	314,440
2003/3	195,879	89,200	8,883	5,915	653,675	313,340
2003/4	226,935	99,523	9,111	5,499	669,412	320,775
Total 2003	834,782	362,500	33,760	22,014	2,707,907	1,272,339
2004/1	240,954	106,381	7,918	5,512	721,196	353,581
2004/2	297,169	122,318	9,195	6,499	815,803	379,971
2004/3	220,550	100,702	7,894	5,803	719,995	349,311
2004/4	220,983	103,715	10,212	6,497	734,496	360,513
Total 2004	979,656	433,116	35,219	24,311	2,991,490	1,443,376

Source: U.S. Department of Commerce, Bureau of the Census.



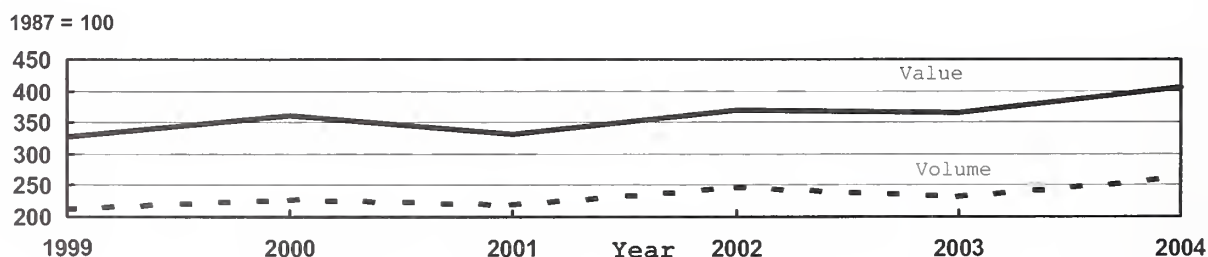
Volume and value index of all U.S. hardwood lumber exports, 1999 - 2004.

Table 20.--Volume and value of U.S. hardwood veneer exports, by region, 1999-2004
(Million square meters and thousands of dollars, f.a.s.)

Year/quarter	Canada		Central and South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1999	74.7	102,203	11.0	14,893	132.1	177,812
2000	85.1	119,474	11.4	14,960	13.2	185,672
2001	88.9	113,772	9.0	11,550	120.2	165,591
2002	99.1	130,977	13.3	17,281	113.9	157,403
2003/1	24.8	35,417	2.2	3,059	25.4	35,802
2003/2	25.9	36,823	3.3	4,027	32.0	45,797
2003/3	23.5	34,877	3.2	4,078	24.4	34,268
2003/4	21.3	31,333	4.6	5,666	31.9	46,347
Total 2003	95.5	138,450	13.3	16,831	113.7	162,214
2004/1	26.6	37,585	4.1	6,176	31.1	44,764
2004/2	32.4	40,807	5.7	7,025	28.8	41,537
2004/3	29.0	34,333	5.5	6,418	23.5	35,133
2004/4	27.2	33,547	5.1	6,115	28.0	41,948
Total 2004	115.1	146,272	20.4	25,735	111.5	163,381

Year/quarter	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1999	46.0	59,228	10.6	12,179	274.4	366,313
2000	52.7	69,467	13.1	15,890	293.8	405,462
2001	55.1	69,805	9.2	10,829	282.5	371,548
2002	79.5	95,998	11.4	11,943	317.3	413,602
2003/1	14.9	18,358	2.7	3,019	69.9	95,656
2003/2	17.6	20,646	3.5	3,932	82.2	111,224
2003/3	13.7	17,078	3.3	3,635	68.2	93,936
2003/4	17.6	20,973	2.7	3,678	78.1	107,997
Total 2003	63.7	77,055	12.2	14,263	298.4	408,814
2004/1	19.4	24,612	2.9	3,545	84.1	116,682
2004/2	18.2	23,102	4.4	4,729	89.6	117,199
2004/3	17.4	23,268	2.7	3,359	78.1	102,510
2004/4	20.3	32,534	2.8	3,466	83.5	117,610
Total 2004	75.4	103,514	12.8	15,098	335.3	454,001

Source: U.S. Department of Commerce, Bureau of the Census.



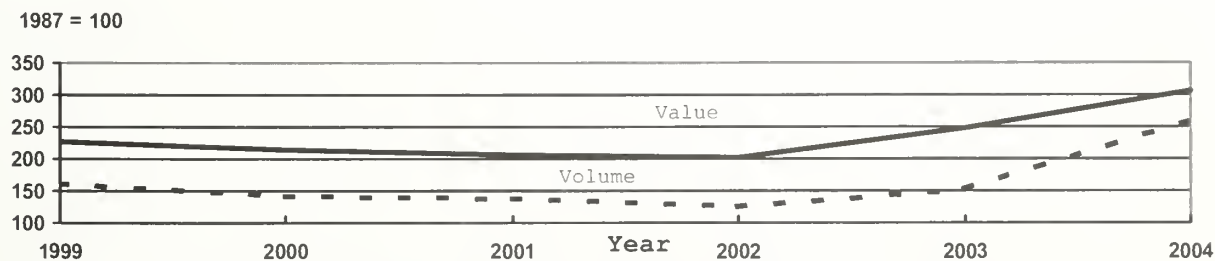
Volume and value index of all U.S. hardwood veneer exports, 1999- 2004.

Table 21.--Volume and value of U.S. hardwood plywood exports, by region, 1999-2004
(Cubic meters and thousands of dollars, f.a.s.)

Year/quarter	Canada		Central and South America and Caribbean		Western Europe	
	Volume	Value	Volume	Value	Volume	Value
1999	50,036	20,084	30,304	11,161	1,279	337
2000	46,942	22,235	19,489	7,154	703	249
2001	43,855	21,100	20,936	5,955	999	531
2002	41,383	20,075	20,357	7,179	1,907	826
2003/1	18,829	8,792	2,487	832	316	191
2003/2	14,595	6,686	2,378	754	405	185
2003/3	12,185	6,179	3,286	1,178	214	94
2003/4	13,818	7,705	8,880	1,487	274	190
Total 2003	59,427	29,362	17,031	4,251	1,209	660
2004/1	13,772	8,098	10,970	2,227	604	329
2004/2	29,044	8,314	12,607	2,280	1,396	462
2004/3	18,284	6,421	13,729	2,873	456	206
2004/4	23,496	7,287	8,579	2,708	528	207
Total 2004	84,596	30,121	45,885	10,087	2,984	1,205

Year/quarter	Asia		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1999	2,591	1,192	428	184	84,638	32,960
2000	6,581	1,461	282	112	73,997	31,211
2001	6,572	2,269	38	9	72,400	29,864
2002	2,230	1,231	148	49	66,025	29,360
2003/1	376	248	140	31	22,148	10,093
2003/2	375	302	0	0	17,753	7,927
2003/3	723	516	219	106	16,627	8,072
2003/4	443	383	63	23	23,478	9,789
Total 2003	1,917	1,449	422	160	80,006	35,882
2004/1	302	339	47	27	25,695	11,020
2004/2	1,821	1,390	15	11	44,883	12,458
2004/3	1,200	895	29	12	33,698	10,407
2004/4	509	308	121	40	33,233	10,550
Total 2004	3,832	2,932	212	90	137,509	44,435

Source: U.S. Department of Commerce, Bureau of the Census.



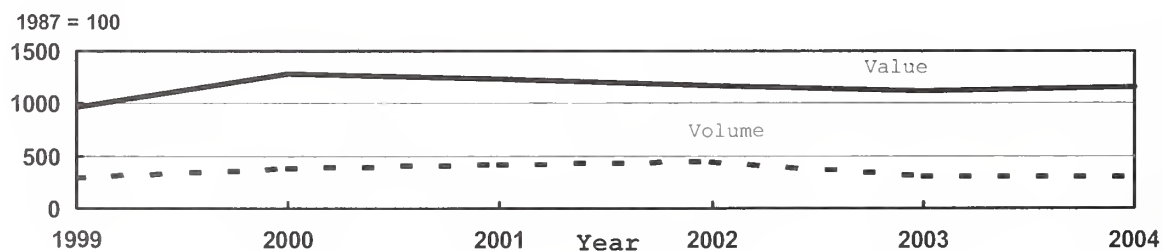
Volume and value index of all U.S. hardwood plywood exports, 1999 - 2004.

Table 22.--Volume and value of U.S. hardwood log imports, by region, 1999-2004
(Cubic meters and thousands of dollars, c.i.f.)

Year/quarter	Canada		Central and South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1999	167,478	30,785	7,313	1,372	1,459	567
2000	227,176	41,469	6,322	1,679	1,030	660
2001	248,183	39,021	5,199	1,541	729	331
2002	245,901	35,179	21,919	3,338	938	532
2003/1	56,369	10,842	765	397	81	105
2003/2	33,457	7,929	3,947	934	159	153
2003/3	42,903	6,857	1,201	718	165	208
2003/4	36,802	6,753	4,367	1,494	141	134
Total 2003	169,531	32,381	10,280	3,544	546	600
2004/1	44,556	8,661	2,351	966	159	88
2004/2	40,078	7,993	2,701	1,137	63	109
2004/3	53,273	8,339	2,375	1,169	266	349
2004/4	31,655	7,153	3,031	1,289	551	287
Total 2004	169,562	32,146	10,458	4,561	1,039	832

Year/quarter	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1999	922	934	3,887	1,544	181,059	35,200
2000	1,332	828	4,344	2,064	240,204	46,701
2001	4,171	1,607	5,989	2,184	264,271	44,684
2002	1,050	947	5,611	2,615	275,419	42,611
2003/1	355	249	507	508	58,077	12,102
2003/2	1,088	427	765	1,012	39,416	10,455
2003/3	620	264	2,268	756	47,157	8,803
2003/4	2,377	443	1,677	645	45,364	9,470
Total 2003	4,440	1,383	5,217	2,922	190,014	40,830
2004/1	171	244	540	594	47,777	10,552
2004/2	436	266	1,422	676	44,700	10,180
2004/3	1,113	721	861	713	57,888	11,291
2004/4	432	443	1,218	878	36,887	10,051
Total 2004	2,152	1,674	4,041	2,862	187,252	42,075

Source: U.S. Department of Commerce, Bureau of the Census.



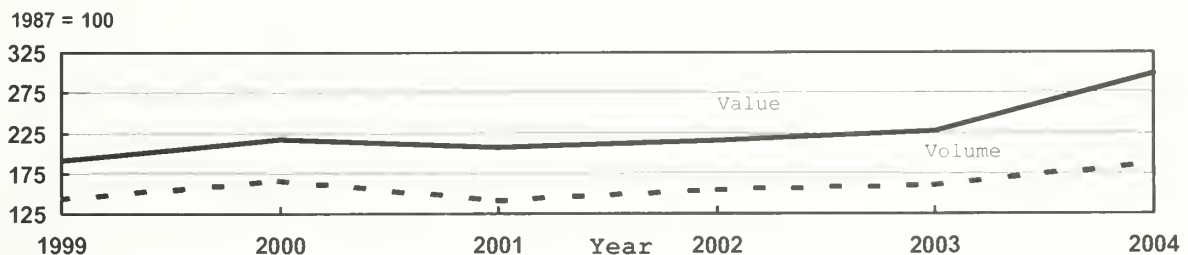
Volume and value index of all U.S. hardwood log imports, 1999 - 2004.

Table 23.--Volume and value of U.S. hardwood lumber imports, by region, 1999-2004
(Cubic meters and thousands of dollars, c.i.f.)

Year/quarter	Canada		Central and South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1999	1,102,642	245,947	257,073	143,630	30,136	18,154
2000	1,224,411	267,927	294,417	155,872	53,873	30,669
2001	1,031,403	236,046	253,297	174,348	57,163	28,668
2002	1,147,448	253,321	256,616	167,643	55,027	28,446
2003/1	277,960	64,106	62,268	36,734	23,189	6,865
2003/2	271,166	67,044	68,904	37,365	13,027	7,796
2003/3	251,073	62,379	71,273	40,592	16,884	8,944
2003/4	294,718	69,142	99,092	51,252	14,749	9,495
Total 2003	1,094,917	262,671	301,537	165,943	67,849	33,100
2004/1	294,454	76,129	101,611	47,228	17,706	10,437
2004/2	330,894	91,415	98,340	48,923	21,300	13,132
2004/3	279,576	77,917	102,943	58,081	31,014	19,193
2004/4	267,252	72,316	137,128	70,287	22,962	16,545
Total 2004	1,172,176	317,776	440,022	224,519	92,982	59,307

Year/quarter	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1999	111,601	76,436	19,545	5,916	1,520,997	490,083
2000	152,702	93,748	35,392	9,425	1,760,795	557,641
2001	108,988	81,260	44,140	13,552	1,494,991	533,874
2002	110,942	83,236	58,889	21,835	1,628,922	554,482
2003/1	23,954	18,111	12,932	5,424	400,303	131,241
2003/2	26,646	22,583	23,210	7,034	402,953	141,821
2003/3	27,830	27,325	32,704	10,711	399,764	149,951
2003/4	44,562	21,121	25,154	8,112	478,275	159,121
Total 2003	122,992	89,139	94,000	31,280	1,681,295	582,133
2004/1	34,533	25,801	20,295	7,473	468,599	167,069
2004/2	58,554	34,556	24,521	10,466	533,609	198,491
2004/3	46,767	35,323	23,571	9,491	483,871	200,005
2004/4	33,504	29,985	34,934	11,638	495,780	200,771
Total 2004	173,358	125,665	103,321	39,069	1,981,859	766,336

Source: U.S. Department of Commerce, Bureau of the Census.



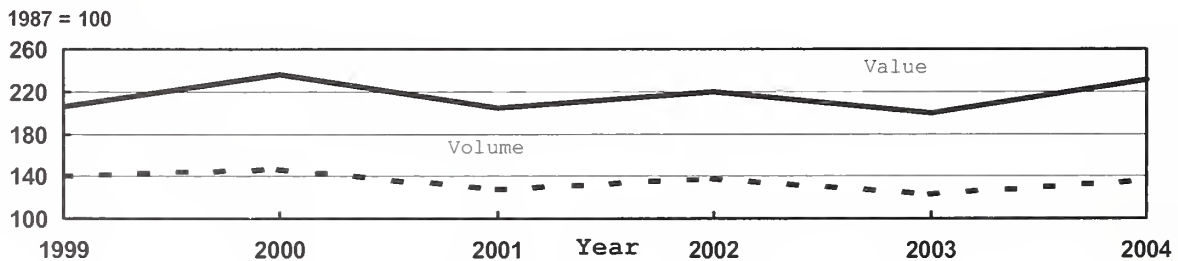
Volume and value index of all U.S. hardwood lumber imports, 1999 - 2004.

Table 24.--Volume and value of U.S. hardwood veneer imports, by region, 1999-2004
(Million square meters and thousands of dollars, c.i.f.)

Year/quarter	Canada		Central and South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1999	133.8	183,218	31.7	37,669	26.2	27,940
2000	139.7	209,551	28.7	36,165	25.0	26,808
2001	18.7	182,502	27.4	35,336	24.4	27,100
2002	122.9	185,638	29.2	35,459	29.3	34,668
2003/1	28.5	43,397	6.7	7,573	5.8	6,376
2003/2	28.4	43,246	5.0	4,968	6.5	7,881
2003/3	26.8	40,506	4.3	6,353	7.5	8,395
2003/4	24.8	39,293	8.1	8,380	6.5	8,792
Total 2003	108.6	166,442	24.1	27,275	26.3	31,444
2004/1	36.7	53,597	4.3	4,712	6.6	7,161
2004/2	37.0	56,381	4.0	4,249	5.7	6,601
2004/3	29.4	46,250	6.1	6,351	8.2	10,054
2004/4	27.0	41,518	5.4	6,200	6.4	7,536
Total 2004	130.1	197,747	19.7	21,512	26.9	31,352

Year/quarter	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1999	11.0	14,543	15.6	48,631	218.5	312,000
2000	10.7	16,753	26.2	67,130	230.4	356,407
2001	10.5	13,943	19.6	49,325	200.6	308,206
2002	10.7	14,693	23.6	62,158	215.6	332,617
2003/1	2.7	4,504	4.3	12,390	48.0	74,240
2003/2	3.0	4,074	3.7	13,930	46.7	74,098
2003/3	5.2	5,774	3.9	14,403	47.8	75,432
2003/4	4.7	5,431	5.4	16,878	49.5	78,775
Total 2003	15.6	19,783	17.4	57,601	192.0	302,545
2004/1	1.8	4,518	4.6	15,098	54.1	85,086
2004/2	3.6	6,022	5.1	17,962	55.5	91,215
2004/3	5.2	6,965	6.0	21,108	54.8	90,729
2004/4	5.3	6,636	5.5	19,815	49.6	81,704
Total 2004	15.9	24,140	21.3	73,983	213.9	348,734

Source: U.S. Department of Commerce, Bureau of the Census.



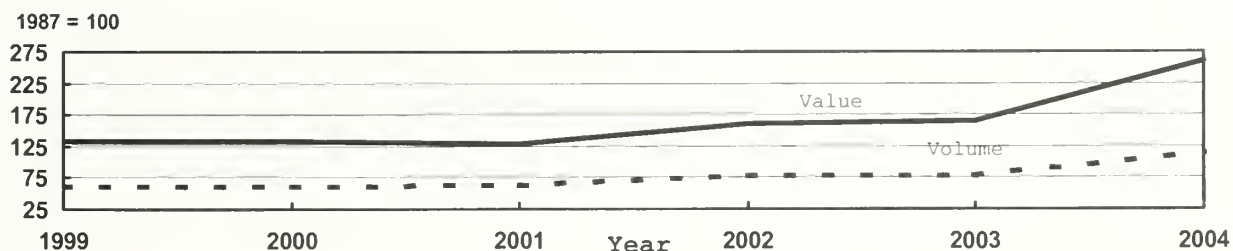
Volume and value index of all U.S. hardwood veneer imports, 1999 - 2004.

Table 25.--Volume and value of U.S. hardwood plywood imports, by region, 1999-2004
(Cubic meters and thousands of dollars, c.i.f.)

Year/quarter	Canada		Central and South America and Caribbean		Africa	
	Volume	Value	Volume	Value	Volume	Value
1999	297,190	157,470	275,804	97,048	1,619	659
2000	340,356	171,449	337,255	120,789	12,487	4,308
2001	321,534	164,960	328,089	103,139	16,761	5,672
2002	335,439	185,117	399,742	120,096	18,433	6,024
2003/1	75,133	39,767	104,436	32,227	2,541	887
2003/2	84,894	47,938	127,225	39,173	4,118	1,434
2003/3	82,697	42,591	103,865	32,698	5,597	1,710
2003/4	77,540	40,936	149,277	44,348	3,362	1,200
Total 2003	320,264	171,231	484,803	148,446	15,618	5,232
2004/1	65,698	38,669	131,973	41,149	3,670	1,274
2004/2	80,920	52,599	144,497	53,479	3,972	1,485
2004/3	75,877	45,967	146,563	57,611	2,258	884
2004/4	76,560	43,051	117,357	50,937	1,037	490
Total 2004	299,055	180,285	540,390	203,176	10,937	4,133

Year/quarter	Asia and Pacific Ocean		All other		Total	
	Volume	Value	Volume	Value	Volume	Value
1999	1,211,676	493,765	284,589	111,682	2,070,878	860,625
2000	1,046,752	424,576	344,230	131,551	2,081,080	852,673
2001	1,057,852	401,010	409,780	152,456	2,134,016	827,236
2002	1,409,031	527,151	542,889	199,044	2,705,534	1,037,432
2003/1	371,444	139,726	86,933	35,385	640,487	247,992
2003/2	365,263	135,845	137,451	53,569	718,951	277,959
2003/3	365,404	145,824	117,985	44,067	675,548	266,891
2003/4	317,951	131,791	116,610	49,116	664,740	267,391
Total 2003	1,420,062	553,187	458,979	182,137	2,699,726	1,060,233
2004/1	461,407	183,862	125,168	56,166	787,916	321,119
2004/2	680,195	285,243	176,789	77,201	1,086,373	470,007
2004/3	684,346	297,922	153,295	68,480	1,062,339	470,864
2004/4	586,760	257,498	151,820	71,262	933,534	423,237
Total 2004	2,412,708	1,024,525	607,072	273,109	3,870,162	1,685,228

Source: U.S. Department of Commerce, Bureau of the Census.

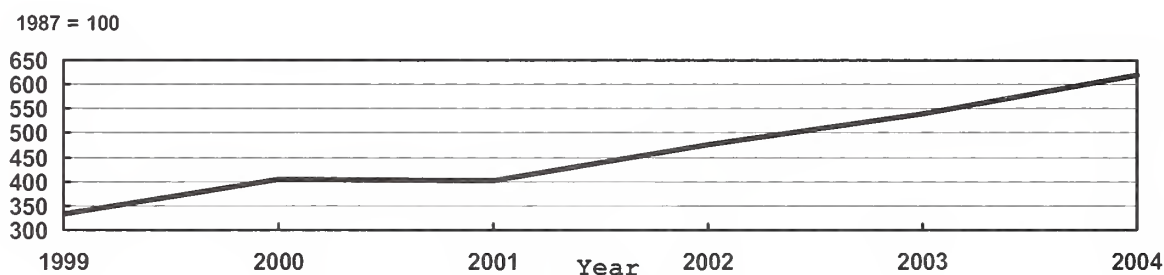


Volume and value index of all U.S. hardwood plywood imports, 1999 - 2004.

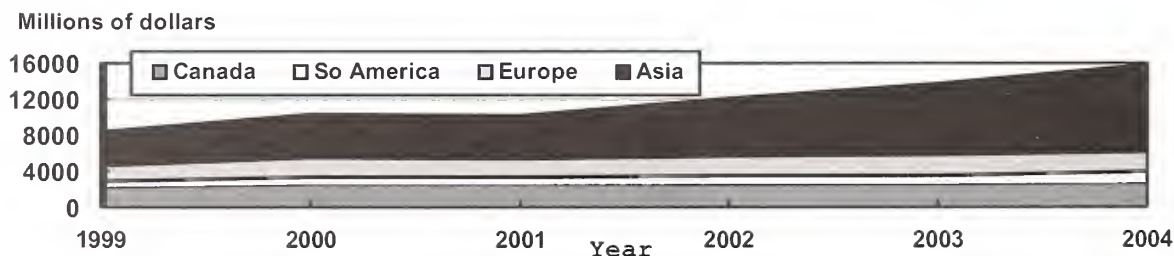
Table 26.--Value of U.S. wood furniture imports, by region, 1999-2004
(Thousands of dollars, c.i.f.)

Year/ quarter	Canada	Central and South America and Caribbean	Europe	Asia, Middle East, and Pacific	All other	Total
1999	2,173,010	800,299	1,636,374	3,908,433	32,366	8,550,482
2000	2,556,924	914,657	2,038,683	4,819,201	40,507	10,369,973
2001	2,486,092	927,366	1,942,661	4,916,402	38,312	10,310,834
2002	2,476,264	1,039,382	2,041,059	6,599,506	33,801	12,190,012
2003/1	604,553	247,781	490,319	1,791,486	8,341	3,142,481
2003/2	626,341	266,540	526,589	1,962,662	8,396	3,390,528
2003/3	644,410	274,953	557,862	2,002,235	8,151	3,487,610
2003/4	655,267	308,834	580,542	2,285,975	7,567	3,838,184
Total 2003	2,530,571	1,098,108	2,155,312	8,042,358	32,454	13,858,803
2004/1	631,549	300,154	529,427	2,132,455	7,017	3,600,601
2004/2	649,668	321,316	547,055	2,520,821	7,718	4,046,572
2004/3	647,323	650,408	530,215	2,370,464	5,871	3,904,279
2004/4	703,788	352,101	556,411	2,746,103	5,973	4,364,375
Total 2004	2,632,328	1,323,978	2,163,107	9,769,842	26,572	15,915,827

Source: U.S. Department of Commerce, Bureau of the Census.



Value index of U.S. furniture imports, 1999 - 2004.



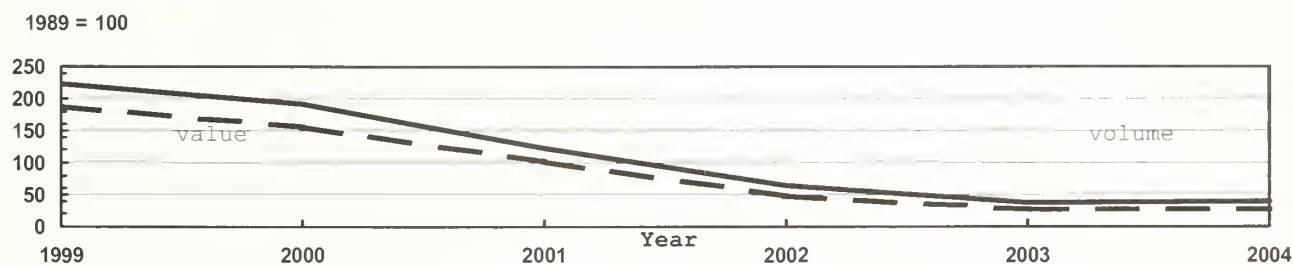
Value of U.S. furniture imports, by region, 1999 - 2004.

Table 27.--Volume and value of U.S. exports of nonconiferous chips, by region, 1999-2004
(Tons and thousands of dollars, f.a.s.)

Year/quarter	Western Europe		Canada		Japan		Mexico	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1999	7,895	909	250,204	8,197	3,320,756	278,124	253	94
2000	25,042	10,642	294,118	9,549	2,734,753	217,700	15,001	934
2001	30,842	11,574	335,617	10,369	1,573,815	127,539	0	0
2002	73,345	9,285	391,240	11,789	567,319	45,042	279	22
2003/1	4,754	1,794	94,449	2,989	37,573	3,261	2	8
2003/2	1,922	827	81,193	2,778	15,623	1,562	18	7
2003/3	9,538	3,572	94,211	3,291	46,680	4,064	4	3
2003/4	15,747	1,412	131,935	4,656	2,240	338	50	3
Total 2003	31,961	7,605	401,788	13,713	102,116	9,225	74	21
2004/1	31	87	114,739	4,060	85,240	5,634	0	0
2004/2	40,251	1,046	78,087	3,944	32,222	2,812	0	0
2004/3	335	124	75,364	5,295	55,793	3,213	0	0
2004/4	59	123	64,339	4,574	39,464	1,831	0	0
Total 2004	40,676	1,378	332,529	17,873	212,719	13,490	0	0

Year/quarter	Taiwan		Korea		All other		Total	
	Volume	Value	Volume	Value	Volume	Value	Volume	Value
1999	0	0	221,253	15,317	14,310	1,588	3,814,671	304,231
2000	1,012	612	195,435	11,336	10,355	2,802	3,275,716	253,575
2001	4,322	2,637	143,781	10,424	10,325	1,829	2,098,702	164,372
2002	4,190	1,743	73,018	5,707	6,709	2,535	1,116,100	76,123
2003/1	3,228	1,340	28,698	3,587	5,083	1,180	173,787	14,158
2003/2	1,117	531	20,392	1,577	2,087	683	122,352	7,965
2003/3	3,868	1,721	0	0	3,768	1,639	158,069	14,289
2003/4	0	0	26,950	2,331	2,862	289	179,784	9,029
Total 2003	8,213	3,593	76,040	7,495	13,800	3,790	633,992	45,442
2004/1	24	8	0	0	4,931	1,229	204,965	11,017
2004/2	7	4	25,782	3,882	5,989	957	182,338	12,644
2004/3	12	4	41,201	2,160	1,800	657	174,505	11,453
2004/4	36	13	25,659	2,506	1,396	611	130,953	9,658
Total 2004	79	29	92,642	8,548	14,116	3,454	692,761	44,773

Source: U.S. Department of Commerce, Bureau of the Census.



Volume and value index of all U.S. exports of nonconiferous chips, 1999 - 2004.

Definition of Terms

c.i.f. (Cost, Insurance, Freight) - The term is used for shipment to designated overseas port of import. The seller quotes a price for the goods, including insurance, all transportation, and miscellaneous charges to the point of debarkation from vessel or aircraft.

f.a.s. (Free Alongside a Ship at designated U.S. port of export) - The seller quotes a price that includes charges for delivery of the goods alongside a vessel at the port. The seller handles the cost of unloading and wharfage. Loading, ocean transportation, and insurance are the buyer's responsibility.

Useful Conversion Factors

1 Mbf (lumber) = 2.36 cubic meters
1 Mbf* (logs - FAO) = 4.53 cubic meters
1 Mbf** (logs - Doyle scale) = 4.59 cubic meters
1 Mbf** (logs - International 1/4" rule) = 3.48 cubic meters
1 Mbf** (logs - Scribner) = 3.90 cubic meters
1 cubic meter = 35.32 cubic feet
1 ton = 2000 pounds
1 metric ton = 2204.623 pounds

- * Factor used by the Food and Agricultural Organization of the United Nations.
- ** Approximation based on 16-foot log with a 15-inch diameter at the top end inside bark. Actual conversion will depend on the distribution of logs under consideration.

Literature Cited

Luppold, William G. 1995. **Causes and remedies for errors in international forest products trade data: examples from the hardwood trade statistics.** Forest Science. 41(2): 278-283.



1022693795



The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, sex, religion, age, disability, political beliefs, sexual orientation, or marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202)720-2600 (voice and TDD).

To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 1400 Independence Avenue, SW, Washington, DC 20250-9410, or call (202)720-5964 (voice or TDD). USDA is an equal opportunity provider and employer.

MANUSCRIPT RECEIVED FOR PUBLICATION 4 APRIL 2005

Published by:
 USDA FOREST SERVICE
 11 CAMPUS BLVD SUITE 200
 NEWTOWN SQUARE PA 19073

June 2005

For additional copies:
 USDA Forest Service
 Publications Distribution
 359 Main Road
 Delaware, OH 43015
 Fax: (740)368-0152

Visit our homepage at: <http://www.fs.fed.us/ne>



Printed on Recycled Paper